

**Louisville Metro Air Pollution Control District**  
**850 Barret Ave., Louisville, Kentucky 40204**  
**23 July 2013**

**Federally Enforceable District Origin Operating Permit**  
**Statement of Basis**

**Company:** Advance Ready Mix – Plant #3

**Plant Location:** 3089 Element Lane, Louisville, Kentucky 40299

**Date Application Received:** 19 February 2008      **Date Admin Complete:** 19 April 2008

**Date of Draft Permit:** 23 July 2013      **Date of Proposed Permit:** 23 July 2013

**District Engineer:** Bob Wesely      **Permit No:** 27847-13-F

**Plant ID:** 1300      **SIC Code:** 3273      **NAICS:** 327320      **AFS:** 01300

**Introduction:**

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), 1 hr and 8 hr ozone (O<sub>3</sub>), and particulate matter less than 10 microns (PM<sub>10</sub>); and is a non-attainment area for particulate matter less than 2.5 microns (PM<sub>2.5</sub>).

**Application Type/Permit Activity:**

☒ Initial Issuance

☐ Permit Revision  
    ☐ Administrative  
    ☐ Minor  
    ☐ Significant

☐ Permit Renewal

**Compliance Summary:**

☐ Compliance certification signed      ☐ Compliance schedule included  
☐ Source is out of compliance      ☒ Source is operating in compliance

**I. Source Information**

1. **Product Description:** Advance Ready Mix Plant - #3 is a dry batch truck mix ready mix concrete plant.
2. **Process Description:** The dry components of concrete (cement, flyash, sand, and aggregate) are measured and loaded with water into concrete ready mix/transit trucks and transported to offsite delivery locations.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent, but there are three (3) other ready mix plants under common control. The other three plants under common control are listed below:

Advance Ready Mix – Plant #1, 820 E. Water St., Louisville KY 40202

Advance Ready Mix – Plant #2, 201 Clay St., Louisville, KY 40402

Advance Ready Mix – Plant #5, 6801 Enterprise Drive, Louisville, KY 40214

**Emission Unit Summary:**

Emission Unit	Equipment Description
U1	One (1) McNeilus truck mix/transit ready mix concrete batch plant, model #12-366, including an outside aggregate/sand handling conveyor with loading hopper

4. **Fugitive Sources:** The fugitive sources were identified by the source are uncontrolled portions of the truck mix/transit ready mix concrete unit.
5. **Permit Revisions:**

Revision No.	Issue Date	Public Notice Date	Type	Attachment No./Page No.	Description
Initial	8/__/2013	7/23/2013	Initial	Entire Permit	Initial Issuance

6. **Emission Summary:**

Pollutant	District Calculated Actual Emissions (tn/yr) 2012 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0	No
NO <sub>x</sub>	0	No
SO <sub>2</sub>	0	No
PM <sub>10</sub>	1.24	Yes

Pollutant	District Calculated Actual Emissions (tn/yr) 2012 Data	Pollutant that triggered Major Source Status (based on PTE)
VOC	0.09	No
Total HAPs	0	No
Single HAP	0	No

**7. Applicable Requirements:**

☐ PSD      ☐ 40 CFR 60      ☒ SIP      ☐ 40 CFR 63  
☐ NSR      ☐ 40 CFR 61      ☒ District-Origin      ☐ Other

**8. MACT Requirements:** The source has no future MACT requirements.

**9. Referenced Federal Regulations in Permit:** There are no federal regulations for ready mix concrete batch plants.

**II. Regulatory Analysis**

**1. Acid Rain Requirements:** Advance Ready Mix is not subject to the Acid Rain Program.

**2. Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. Advance Ready Mix – Plant #3 does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

**3. Prevention of Accidental Releases 112(r):** Advance Ready Mix - Plant #3 does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

**4. 40 CFR Part 64 Applicability Determination:** Advance Ready Mix – Plant #5 is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.

**5. Basis of Regulation Applicability**

**a. Plant-wide**

Advance Ready Mix - Plant #3 is a potential major source for the pollutant PM<sub>10</sub>. Regulation 2.17 – *Federally Enforceable District Origin Operating*

*Permits* establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

The source is not major for Greenhouse Gases.

Advance Ready Mix – Plant #3 confirmed a throughput limit of 280,000 yd<sup>3</sup>/yr of ready mix concrete, that equates to a plant wide emission limit of less than 50 tons per year for the pollutant PM<sub>10</sub>, less than 100 tn/yr, but more than 50 tn/yr of the pollutant PM, and a plant throughput limit of 280,000 yd<sup>3</sup>/yr of ready mix concrete.

Regulations 5.00, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Advance Ready Mix – Plant #3 submitted a plant wide STAR EA Demonstration for Category 1 TAC on September 30, 2008. Advance Ready Mix – Plant #3 has demonstrated that the TAC emissions from this plant are de minimis.

b. **Emission Unit U1 – Transit mix concrete batch plant**

i. **Equipment:**

P/PE	Capacity	Application Date	Applicable Regulation	Basis for Applicability
E1: Cement silo	150 tn/hr	7/28/98	1.14, 2.17, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08	STAR regulations (5 series) are applicable to FEDOOP  Regulation 7.08 establishes the requirements for PM emission from new processes that commences construction after September 1, 1976.
E2: Flyash silo	125 tn/hr	7/28/98		
E3: Aggregate weigh hopper	329 tn/hr	7/28/98		
E4: Cement/Flyash weigh hopper	56.4 tn/hr	7/28/98		
E5: Truck Loadout	400 tn/hr	7/28/98		
E6: Aggregate stockpiles	NA	7/28/98		
E7: Aggregate handling	NA	7/28/98		
E8: Aggregate transfer conveyor	230 tn/hr	7/28/98		
E9: Aggregate bins	230 tn/hr	7/28/98		
E10: Roads & Yard	NA	7/28/98		
E11: Agg/sand bins loading conveyor	230 tn/hr	7/28/98		
E12: Agg/sand bins loading conveyor hopper	230 tn/hr	7/28/98		
E13: Conveyor loading hopper	230 tn/hr	7/28/98		

**ii. Standards/Operating Limits****1) PM/PM<sub>10</sub>**

- (a) Regulation 2.17, section 5.1, allows the source to set a synthetic limit below the major source threshold. Source selected a synthetic throughput limit of less than 280,000 yd<sup>3</sup> of ready mix concrete in a 12 consecutive month period, that equates to less than 50 tn/yr of the pollutant PM<sub>10</sub> to remain below the threshold limit for a criteria pollutant.
- (b) Regulation 1.14, section 2.1 requires the source to take precautions to prevent particulate matter from becoming airborne beyond the work site.
- (c) The emission standard for PM at each emission point with a process throughput of greater than 30 tn/hr is determined in accordance with Regulation 7.08, section 3.1.2 as follows:

$$\text{PM lb/hr limit} = 17.31 (\text{process weight tn/hr})^{0.16}$$

- (d) The existing emission standards for PM in the construction permit were used where applicable.

**2) Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

**3) TAC**

Regulation 5.21 requires Group II sources to demonstrate environmental acceptability for each Category 1 through 4 TAC per Regulation 5.20, 5.21, 5.22, and 5.23. The potential uncontrolled TAC emissions from this unit have been determined by the District to be de minimis by definition, based on MSDS provided by the source.

**iii. Monitoring and Recordkeeping**

The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

1) **PM/PM<sub>10</sub>**

Regulation 7.08 does not contain specific monitoring or record keeping requirements, however, Regulation 2.17, section 5.2, requires the permit to include testing, monitoring, and recordkeeping required to assure compliance with terms and conditions of the permit.

2) **Opacity**

Regulation 7.08 does not contain specific monitoring or record keeping requirements, however, Regulation 2.17, section 5.2, requires the permit to include testing, monitoring, and recordkeeping required to assure compliance with terms and conditions of the permit.

3) **TAC**

Regulation 5.21, section 4.10 does require any specific monitoring and recordkeeping requirements for TACs, however to show compliance.

iv. **Reporting**

Regulation 2.17, section 2, requires stationary sources for which a FEDOOP is issued shall submit an annual compliance certification by April 15. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an annual compliance report to show compliance with the standards by March 1, of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

1) **PM/PM<sub>10</sub>**

(a) Regulation 2.17, section 5.2 requires reporting to ensure compliance with the terms and conditions of the permit. The source is required to report the monthly totals and the monthly twelve (12) consecutive month totals of the ready mix concrete produced to insure it does not exceed the limit of 280,000 yd<sup>3</sup> per twelve (12) consecutive month period.

(b) Regulation 2.17, section 5.2 requires reporting to ensure compliance with the terms and conditions of the permit. The source is required to report the monthly totals and the monthly twelve (12)

consecutive month totals of the pollutant PM<sub>10</sub> emitted to insure the plant wide limit of less than 50 tn/yr is not exceeded.

2) **Opacity**

Regulation 7.08 does not require any specific reporting requirements for opacity, however, Regulation 2.17, section 5.2 requires reporting to ensure compliance with the terms and conditions of the permit. The source is required to report any permit deviations or exceedances of the opacity standard in their annual compliance reports.

3) **TAC**

Regulation 5.21, sections 4.22, 4.23, and 4.24 require the source to submit a re-evaluated environmentally acceptable (EA) demonstration within 6 months of making a change that impacts the demonstration of environmental acceptability.

### III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility:** The source did not request any operation flexibility.
5. **Compliance History:** The source has no compliance history issues.
6. **Calculation Methodology or Other Approved Method:**

Concrete Batch Plant (U1): Emission factors from AP-42, Chapter 11.12, Concrete Batching, were used to determine Potential To Emit and confirm limits requested by the source. Other emission factors may be used, as approved by District. TAC emissions shall be determined based on lab analysis or the MSDS of the materials used to make the ready mix concrete.

**7. Insignificant Activities**

Description	Quan.	PTE (tpy)	Basis for Exemption
550 gal tanks for storage of lubricating oils or fuel oils, with vapor pressure less than 10 mm of Hg at conditions of 26°C and 760 mm Hg	2	0.00073 VOC	Reg. 2.02, section 2.3.9.2
Combustion source < 10 mmbtu/hr	1	0.09 VOC	Reg. 2.02, section 2.1.1

- 1) Insignificant activities identified in District Regulation 2.02 Section 2, may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 2.02 Section 2 shall comply with generally applicable requirements.
- 3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 4) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year.
- 5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.
- 6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.